

Title (en)

DISCHARGE VALVE TO INCREASE HEATING CAPACITY OF HEAT PUMPS

Title (de)

ENTLADUNGSVENTIL ZUR HEIZLEISTUNGSERHÖHUNG VON WÄRMEPUMPEN

Title (fr)

VALVE DE DECHARGE AUGMENTANT LA CAPACITE DE CHAUFFAGE DE POMPES DE CHALEUR

Publication

EP 1787069 B1 20111005 (EN)

Application

EP 05813779 A 20050831

Priority

- US 2005030740 W 20050831
- US 93603404 A 20040908

Abstract (en)

[origin: US2006048526A1] A heat pump is provided with a discharge valve on a discharge line. The discharge valve can be positioned to modulate or pulse refrigerant flow from the discharge line heading toward an indoor heat exchanger, when in a heating mode. By providing this restriction, the pressure and the temperature of the refrigerant increases. This increased temperature provides additional heating capacity as well as increases the temperature of the delivered indoor air, minimizing "cold blow" and making the end user more comfortable. The use of discharge valve can also minimize or entirely eliminate the ON/OFF unit cycling, as the amount of heat delivered can be precisely controlled by pulsing or modulating the valve, thus reducing unit cycling losses, improving user comfort and enhancing reliability.

IPC 8 full level

F25B 13/00 (2006.01)

CPC (source: EP US)

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